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# DISPOSABLE EYE PATCH AND METHOD OF MANUFACTURING A DISPOSABLE EYE PATCH

## BACKGROUND OF THE INVENTION

### 1. Field of Invention

This invention relates to a disposable eye patch. In particular, this invention relates to a disposable eye patch used during surgical and/or professional facial care procedures.

### 2. Description of Related Art

Cosmetic surgical procedures (e.g., plastic surgery) and professional facial care procedures are becoming increasingly popular. In some cases, patients request such procedures for facial parts such as the nose bridge, forehead, temples, and areas immediately surrounding the eyes. During surgical or other procedures to such facial parts, since the procedures often require very delicate and detailed work, doctors and other professionals must have access to as much unobstructed area as possible. At the same time, the doctors or other professionals need to avoid damaging the patient's eyes by various surgical, medical and cosmetic items, such as abrasion systems, chemicals, air jets, air streams, liquids, medicines, medicine applicators, surgical tools (e.g., scalpels, hemostats, needles, etc.) and other devices.

Therefore, the patient's eyes are often covered by materials such as a surgical tape and gauze while a surgical or facial care procedure is being performed. However, there is a need for more complete access to areas around the patient's eyes and for more reliable protection methods and devices.

U.S. Pat. No. 4,682,371 to Heltman discloses a protective eye patch. This eye patch has several adhesive tabs for securing the eye patch on the patient's eye. However, since the tabs do not entirely adhere the edge of the eye patch, there is a possibility that liquids or medicines may enter a patient's eye covered by this eye patch.

U.S. Pat. No. 3,068,863 to Bowman discloses another type of protective eye patch. This eye patch is designed to keep the eye closed. However, since this patch is adhered onto the patient's eyelid and surrounding eye tissues, this eye patch is not comfortable to wear.

U.S. Pat. No. 3,092,103 to Mower provides an eye patch that has a cushion material on an edge of the eye patch, and allows a patient's eye to move and/or open underneath the eye patch. Because of its large size, this patch is not suitable for many surgical and facial care procedures.

U.S. Pat. No. 4,867,146 to Krupnick et al. discloses an eye patch for preventing opening of an eye and preventing corneal abrasion. This eye patch has adhesive areas around the patch and part of a center part of the eye patch. However, because of the adhesive areas in the center part, it is uncomfortable for the patient to wear the eye patch for a long time. In fact, it is designed for use on an anesthetized patient.

U.S. Pat. No. 5,180,360 to Rhame, Jr. discloses an oval shaped eye patch with a thick inner foam patch or adjustable bladder for adjusting pressure against an eyelid. This patch is quite large, being designed to attach to the outside of the eye socket, and covers some areas of the face that may need to be accessed for some surgical or facial care procedures.

## SUMMARY OF THE INVENTION

This invention provides a small size disposable eye patch that allows doctors or other professionals full access to areas

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around the eyes for surgery and facial care procedures and is comfortable for the patient to wear.

A disposable eye patch according to the invention includes a first sheet member, a second sheet member smaller than the first sheet member, and an adhesive layer applied to one side of at least the first sheet member. One portion of the adhesive layer bonds the first and second sheet members together, and another portion of the adhesive layer adheres to the tissue surrounding an eye when the eye patch is applied to a patient. A release layer may be provided to cover the exposed portion of the adhesive layer, and peeled off prior to use of the eye patch.

The first and/or second sheet member may be made of biocompatible foamed plastic material, such as foamed PVC (polyvinyl chloride) or the like. The first adhesive layer is preferably pressure-sensitive, latex-free and hypoallergenic. The first and second sheet members preferably have the same thickness, and are made of the same material.

In a method of manufacturing the disposable eye patch, the first and second sheet members may both be formed from a sheet material having an adhesive layer, and then the first and second sheet members may be adhered together with the adhesive layer on one of the sheet members contacting the adhesive layer on the other one of the sheet members.

These and other features and advantages of this invention are described in or are apparent from the following description of exemplary embodiments.

## BRIEF DESCRIPTION OF THE DRAWINGS

An embodiment of the invention will now be described with reference to the accompanying drawings, in which:

FIG. 1 is a top view of a disposable eye patch;

FIG. 2 is a bottom view of the disposable eye patch of FIG. 1;

FIG. 3 is a cross-sectional view of the disposable eye patch of FIG. 1;

FIG. 4 is a top view of the disposable eye patch of FIG. 1 mounted on a release layer;

FIG. 5 is a cross-sectional view of the disposable eye patch and the release layer of FIG. 4;

FIG. 6 is a perspective view of the eye patch of FIG. 1 provided on a dispenser roll; and

FIG. 7 shows the disposable eye patch of FIG. 1 being used during a facial care procedure.

## DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

As shown in FIGS. 1 and 2, a disposable eye patch 10 includes a first sheet member 11 and a second sheet member 12. These first and second sheet members are preferably oval in shape, although other shapes, such as a teardrop shape or the like, are also possible. "Oval" in the context of this application includes elliptical, oblong, and egg shapes. The first sheet member 11 is preferably made of biocompatible foamed plastic material. The second sheet member 12 is also preferably made of biocompatible foamed plastic material.

The eye patch 10 includes a first adhesive layer 13 on one side of the first sheet member 11 for adhering the eye patch 10 onto the tissue surrounding the patient's eye and for adhering the first sheet member 11 to the second sheet member 12. This first adhesive layer 13 may have a plan view size approximately equal to the plan view size of the first sheet member 11 and is preferably made of a pressure-sensitive adhesive (i.e., it may acquire greater adhesion with